Remarks

Claims 1-20 were pending in the application. Claims 1-20 were objected to. Claims 1-20 were rejected. Claim 1 is canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 2-20 are amended. Claims 2-20 are now pending. Claim 2 is the independent claim. Reconsideration of the amended application in view of the following remarks is respectfully requested.

The examiner reminded the applicants of the proper language and format for an abstract. The present application is a national stage PCT application that was filed with a proper abstract.

The examiner objected to claims 1-20 because of certain noted informalities. The claims are amended to address these informalities. The objection, therefore, should be withdrawn.

The examiner rejected claims 1-20 under 35 USC §112 as being indefinite. The claims are amended to address the examiner's comments. The rejection, therefore, should be withdrawn.

The examiner rejected claims 1-20 under 35 USC §101 as being directed to non-statutory subject matter. The claims are amended such that they are statutory under *Ex parte Bliski*, by tying the claimed method to a particular machine or apparatus. The rejection, therefore, should be withdrawn.

The examiner rejected claims 1-9 and 11-20 under 35 USC §102(b) as being anticipated by Barnhill et al.

As amended, independent claim 2 recites a method for training at least one learning-capable system. According to the claimed method, a predetermined training data set corresponding to input data for each of a respective predetermined number of subjects is provided, including a predetermined input data set and a predetermined outcome data set. The input data set and/or the outcome data set is/are augmented according to predetermined criteria. Each learning-capable system is trained using the augmented input data set and/or the augmented outcome data set, through the use of a computing device. The augmenting step includes estimating propensity score data for each said subject depending on corresponding input data, dividing the propensity score data into at least two strata, assigning each subject to a stratum according to predetermined criteria, and augmenting the input data of each subject by its propensity score data and/or its stratum assignment. It is noted that a "propensity score" is a well-known and defined term of art in the field of statistics used, for example, to reduce selection bias.

In contrast, Barnhill et al. disclose a computer-assisted method for diagnosing disease that does not make use of propensity scores. The examiner considers identifying the group to which each sample in the training data set belongs to be a propensity score. The applicants respectfully disagree. A propensity score relates to a conditional probability, such as the probability of a data unit being assigned to a particular condition in a study given a set of known covariates. Thus, an identification of the actual group to which a sample belongs is not a propensity score. Such an identification would not look forward or provide any meaningful training information, but rather would always give a

score of 100% based on a snapshot of a current grouping, giving no weight to possible groupings that would necessarily have value during a training process. Barnhill et al. do not disclose or suggest estimation of propensity score data.

The examiner also asserted that any modification of the training data could be considered to be "augmenting" under claim 2. Again, the applicants respectfully disagree. Claim 2 specifically recites that the input data of each subject is augmented by its propensity score data and/or its stratum assignment, and therefore any general modification of the data does not satisfy the requirements of this claim. Thus, Barnhill et al. also do not disclose or suggest the claimed augmenting step.

For at least the reasons noted above, it is submitted that Barnhill et al. do not anticipate the invention as recited in claim 2. Claims 3-9 and 11-20 depend from claim 2, and therefore also are not anticipated by Barnhill et al. The rejection of claims 2-9 and 11-20, therefore, should be withdrawn.

It is submitted that all objections and rejections have been overcome. It is therefore requested that the Amendment be entered, the claims allowed, and the case passed to issue. If any issues remain after entry of this Amendment, the examiner is urged to contact the undersigned by telephone to expedite resolution.

Respectfully submitted,

June 23, 2009
Date

Thomas M. Champagne
Registration No. 36,478
Customer No. 49691
828.253.8600
828.253.8620 fax

TMC:dam